What is the difference between and the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Glass Manufacturing Area Sources and the new DEQ Colored Art Glass Manufacturing (CAGM) Facility temporary rules?

The NESHAP for Glass Manufacturing Area Sources, 40 CFR, Part 63, Subpart SSSSSS (referred to as the 6S NESHAP) applies to facilities with equipment and operations comparable to those at Bullseye Glass Company and Uroboros Glass.

NESHAPs are stationary source standards for hazardous air pollutants. Hazardous air pollutants are those pollutants listed by EPA that are known or suspected to cause cancer or other serious health effects, such as reproductive effects or birth defects, or adverse environmental effects. Each NESHAP applies to a particular type of industry and only regulates the hazardous air pollutants that are of concern for that industry type.

Major source NESHAPs apply to facilities that emit 25 tons or more per year of total hazardous air pollutants (HAPs) or 10 tons per year or more of an individual HAP. Area source NESHAPs regulate facilities that emit less than 25 tons per year of total hazardous air pollutants and less than 10 tons per year of an individual HAP.

The 6S NESHAP is an area source NESHAP and applies to facilities that make glass using one or more of the six HAP metals regulated by the NESHAP. However, the requirements of this NESHAP do not apply to individual glass making furnaces that make less than 50 tons per year of glass that contains one or more of the six HAP metals.

On April 21, The Oregon Environmental Quality Commission adopted the Colored Art Glass Manufacturing Facility temporary rules to protect public health by including requirements that are more stringent than the 6S NESHAP; in particular, the DEQ rules apply to much smaller art glass facilities than the 6S NESHAP.

The 6S NESHAP does not specifically address hexavalent chromium emissions; instead it addresses total chromium, which includes hexavalent chromium.

What do the DEQ temporary rules for colored art glass manufacturing facilities require?

The temporary rules regulate two tiers of colored art glass manufacturers, based upon manufacturing capacity. DEQ made this split because smaller manufacturers produce much less glass than the larger facilities, and because there are some significant process differences.

Tier 1 facilities are those that manufacture 10 tons per year or more of colored art glass, but not more than 100 tons per year, in electrically heated furnaces. These facilities must apply for air contaminant discharge permits and install emission controls or do testing and air emission modeling to show that they meet an exemption by Oct. 1, 2016.

Tier 2 facilities are those that manufacture 10 tons per year or more of colored art glass in fuel burning furnaces, or those that manufacture 100 tons per year or more of colored art glass in any type of furnace, regardless of fuel source. These larger manufacturers must install emission control systems for all furnaces that use any of the six specified HAP metals, and prohibit arsenic or cadmium use in uncontrolled furnaces. These facilities must comply with the temporary rules by Sept. 1, 2016.

The temporary rules prohibit using hexavalent chromium in uncontrolled furnaces for both tiers. Tier 2 manufacturers are required to test for total chromium and hexavalent chromium and perform dispersion modeling to determine chromium usage allowances.

How will DEQ apply these regulations to Bullseye Glass Company?

Bullseye Glass Company will achieve compliance with the 6S NESHAP and temporary rules through the mutual agreement and order (MAO) that DEQ and Bullseye Glass signed on June 6, 2016. This is an enforceable administrative order that puts the company on a path to compliance with both the 6S NESHAP and the temporary rules. The agreement requires Bullseye Glass to install pollution control equipment and apply for a Title V operating permit. It also restricts use of other metal HAPs in uncontrolled furnaces in advance of the Sept. 1, 2016 compliance date.

The MAO resolves the company's past NESHAP violations and will stay in place until DEQ issues the Title V permit. MAOs are enforceable and come with stipulated penalties for violations.

How will DEQ apply these regulations to Uroboros Glass?

Uroboros Glass will achieve compliance with the NESHAP and temporary rules through the mutual agreement and order that DEQ and Uroboros Glass signed on May 25, 2016. The MAO requires the company to apply for either a Title V permit or an air contaminant discharge permit. The company currently does not have an air quality permit.

Uroboros Glass is a Tier 2 manufacturer and it has three options regarding emission controls:

- Install emission controls;
- Demonstrate that it is exempt from having to install emission controls, or
- Ask for a permit condition prohibiting the use of one or more of the metals.

The MAO will stay in place until DEQ issues the appropriate permit.

Why weren't these facilities required to comply with the federal requirements earlier?

The 6S NESHAP applies to art glass facilities that use "continuous furnaces". At the time the NESHAP was issued by EPA, Bullseye Glass and Uroboros Glass had the understanding that their furnaces were batch furnaces and reported to EPA and DEQ that this NESHAP was not applicable to their respective facilities. On March 9, 2016, DEQ requested clarification from EPA as to whether Bullseye Glass and Uroboros Glass have continuous furnaces as defined in the 6S NESHAP. On April 12, 2016, EPA clarified that continuous furnaces are furnaces that are kept continuously hot even at times when glass is not actually being made. Since the furnaces at Bullseye Glass and Uroboros Glass are kept continuously hot both during and between batches, EPA considered them continuous furnaces. The following day, DEQ notified both companies that they are subject to the 6S NESHAP.